

A Review of the Literature on Behavior Management Interventions for School Buses

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A Review of the Literature on Behavior Management Interventions for School Buses

Participant Outcomes

Attendees will: 1) identify challenges related to implementing behavior support systems on school buses, 2) identify various interventions used on school buses, 3) summarize findings and limitations of research concerning school buses, and 4) describe the implications of the literature for practitioners

Abstract

The lack of adult supervision on school buses facilitates traffic-related injury, bullying, and other infractions. This review identified studies evaluating behavior interventions designed to improve student behaviors on school buses. Identified studies provided limited information regarding the characteristics of participants and generally assessed the effect of driver or researcher implemented reinforcement, punishment, and other management activities on the behavior of all passengers. Studies yielded modest findings and did not satisfy the most recent quality indicators of the Council of Exceptional Children. Implications for practice and future research follow a discussion of findings.

Rationale

More than half of students in grades K-12 use school buses for transportation to school (Cook & Shinkle, 2012). Although school buses have historically lacked systematic approaches to behavior management, drivers have repeatedly reported an interest in reducing the distractions resulting from inappropriate student behaviors (Newcomer et al., 2009). As a framework of behavioral intervention designed to address the needs of all students, positive behavioral interventions and supports (PBIS) has resulted in positive outcomes for students with a variety of behavioral needs. Studies concerning the use of PBIS have almost exclusively focused on teacher-implemented interventions within classrooms. Fully realizing the potential benefits of PBIS will require knowledge of previous studies involving targeted and intensive intervention .

Usefulness to Practitioners

This presentation has several benefits for practitioners. As research of limited quality can result in misplaced resources, an assessment of behavior interventions for bus riders will prove beneficial to practitioners searching for effective practices. Discussion regarding specific behavioral interventions, training methods, and practical considerations involved in expanding behavior management will be discussed. This presentation has the potential to help practitioners reduce problem behaviors aboard school buses and enhance the quality of extant PBIS frameworks.

Relevance

PBIS involves the application of management to all students, including students with disabilities. Implementing PBIS strategies on school buses further requires schools to extend training opportunities a personnel who differ from the teachers typically involved in managing student behaviors. As a result, this presentation is directly related to diversity of students and practitioners.

Evidence: Literature Review

Summary of research. PBIS has been adopted in approximately 16,000 schools throughout the United States (e.g., Horner et al., 2014). Numerous studies, including randomized control trials, support the efficacy of PBIS at the elementary (e.g., Waasdorp et al., 2012) and secondary level (e.g., Luiselli et al., 2005). Despite repeated calls for the expansion of PBIS into a variety of settings (e.g., Horner & Sugai, 2015), however, research is primarily relegated to elementary and middle school classrooms. That is, studies of PBIS in areas high-need areas, including alternative schools, mental health facilities, and other settings are limited (e.g., Lampron & Gonsoulin, 2013). Environments in which behavior management interventions have not been extensively evaluated include lunchrooms, playgrounds, and school buses (Newcomer et al., 2009).

Research questions. Questions guiding the current study included (a) what are the characteristics of participants; (b) what types of interventions and behaviors have been evaluated; (c) how effective were the interventions in reducing student behavior; and (d) in terms of methodology, to what extent are they consistent with recently disseminated standards of quality (i.e., Cook et al., 2015)?

Research design. A systematic review yielded a 9 peer-reviewed articles and 9 dissertation studies. Specific features of the studies were assessed including (a) participant characteristics, (b) methodology, (c) interventions, (d) targeted skills, and (e) results. Effect sizes were calculated for all studies. Methodological quality of articles was assessed in accordance with standards of the Council for Exceptional Children (CEC). A second observer assessed interobserver agreement (IOA). Average IOA across 53% of studies was 93% ($SD = 4.76$, $R = 83 - 100\%$). Approximately 56% of articles ($n = 10$) were coded for quality, with an average IOA of 94% ($SD = 5.24$; $R = 87 - 100$). For visual analysis of effects in single-case design, IOA across 100% of cases ($n = 32$) was 94%.

Results. Interventions were evaluated with single-case design in 9 articles and 3 dissertations featuring 32 potential cases. Group designs were used in the remaining dissertations ($n = 6$). The average age of studies was 24.5 years ($SD = 15$; $R = 0 - 44$). Authors identified the number of student participants ($n = 693$) in 67% of dissertations and published studies ($n = 12$). Studies primarily involved children in the elementary or middle grades. Additional demographic information was not provided. A large portion of studies involved universally applied interventions (72%; $n = 13$) featuring reinforcement of punishment procedures implemented by drivers or researchers. Driver training was also featured in a large number of studies (44%; $n = 8$). Interventions that did not involve in-situ implementation adults, such as video monitoring, and peer-mediated treatment, appeared less frequently. Sixty-eight percent of dependent variables ($n = 19$) related to student behaviors observed on the bus. The remaining studies

targeted indirect measures such as referrals. Of single-case design studies identified in the search, 42% demonstrated a functional relation between the dependent and independent variable, compared to 33% of group designs resulting in a significant finding. None of the studies satisfied the CEC guidelines for quality research.

Discussion. Much of the research involving school buses is dated and demonstrates little methodological rigor. Research relying on drivers to supervise students may be impractical given the demands of bus driving. Additional research is needed to demonstrate the feasibility of such procedures and evaluate peer-mediated interventions, self-monitoring, and other interventions that do not require direct implementation. Further discussion will address the integration bus management into PBIS as well as challenges of such work to researchers.

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